

ABSTRACT OF THE INVENTION

A communications system and method are disclosed. A transmitter includes a
scrambler for scrambling original data, an ECC encoder for converting scrambled data into
5 ECC data, and a serializer for converting the ECC data into a serial stream. A receiver
includes a frame recoverer for converting the serial data into frame data, an ECC decoder
from converting the frame data into ECC data and error indications, and a descrambler for
restoring the original data. By using the results of the ECC decoding to convert the serial data
into frame data, line decoding is unnecessary, thereby reducing channel usage.

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